

uniformity in the distribution of rainfall.

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In this paper, the authors analyse the data collected from small farm catchments ranging between 1 to 3 ha under semi-arid black soil region. It was observed that maximum rainfall, runoff and soil loss occurred during the month of September followed by October and June. Annual runoff and soil loss were as high as 128 mm and 11.3 t/ha/year, suggesting that the area is prone to severe soil erosion. Climatic water balance analysis showed that in each month potential evapotranspiration was more than that of rainfall and hence water deficit exists throughout the year. There was minimum water deficit in the month of September, followed by October and November, whereas maximum water deficit was in March and April. For the same rainfall, higher runoff and peak rate of runoff was observed in sorghum followed by chickpea and a little less in safflower. Probability analysis of rainfall and runoff data has also been presented.